

## ITEMS FOR CONSENT AGENDA

April 23, 2020

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**ACTION:** **Approve Addition of Geography-Mapping and Counseling-Human Services Minors at Wayne State College (AP)**

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Per Board Policy 4200 which requires all new academic programs to be submitted to the Board for approval, Wayne State seeks approval to add the following undergraduate minors, beginning Fall 2020:

Geography - Mapping minor  
Human Service Counseling - Human Services minor

The System Office and Wayne State College recommend approval of the Addition of Mapping and Human Services Minors at Wayne State College (AP).

**ATTACHMENTS:**

- WSC Geography Minor in Mapping Proposal (PDF)
- WSC Human Service Counseling Minor in Human Services Proposal (PDF)

**Wayne State College**  
**Proposal to Add a New Minor in Mapping (Geography)**

**1. Descriptive information**

- A. Name of institutions  
Wayne State College (WSC)
- B. Name of program  
Geography
- C. Degrees/credentials to be awarded graduates of the program  
Minor in Mapping
- D. Other programs offered in this field by the institution  
None
- E. CIP code  
45.0702
- F. Administrative units for the program  
WSC - Department of History, Politics, and Geography, School of Natural Sciences
- G. Proposed delivery site(s) and type(s) of delivery, if applicable  
On Campus WSC
- H. Proposed date (term/year) the program will be initiated  
Fall, 2020
- I. Description of Program  
This is a 21-hour minor designed to enhance student backgrounds from different majors and prepare graduates for opportunities in growing fields concerning geomatics and geographic information systems (GIS). Geomatics is an umbrella term encompassing all technologies involved with surveying. Students pursuing studies in fields such as geography, earth science, drafting, computer science, and math may enhance their marketability by gaining hands-on experience using the technologies offered in the proposed minor. MAT 130 Pre-calculus has a prerequisite (MAT 110 or MAT 121), unless the student tests into this course. Students in this minor are required to take ITE 497 internship with a certified surveying company for at least 1-credit hour. The WSC Industrial Technology Program places student interns at Peter Kiewit and would assist students in the proposed minor. In addition, the Geography Program will seek out assistance from the Professional Surveyors Association of Nebraska (PSAN) for placing student interns at certified surveying companies.

## **Minor in Mapping (21 hours)**

A minimum of twelve (12) of the twenty (21) credit hours must be upper level (300-400) courses. A minor must include a minimum of twelve (12) credit hours unduplicated by the student's major(s).

### Required Courses:

GEO 425 Urban Geographic Information Systems (3)

OR

GEO 430 Geographic Information Systems (3)

GEO 435 Computer Mapping (3)

ITE 109 Mechanical Engineering and Drafting (3)

ITE 304 Surveying and Print Reading (3)

ITE 497 Internship (1)

MAT 130 Pre-calculus (5)

### Plus three (3) hours of electives selected from the following courses:

GEO 320 Urban Geography (3)

GEO 425 Urban Geographic Information Systems (3) (if not taken as required course)

GEO 430 Geographic Information Systems (3) (if not taken as required course)

GEO 440/540 Remote Sensing (3)

GEO 497 Internship (3)

ENG 200 Expository Writing (3)

ITE 214 Residential Drawing (3)

ITE 404 Commercial and Structural Design (3)

## **2. Centrality to Role and Mission**

The mission statement of Wayne State College indicates it is "...dedicated to freedom of inquiry, excellence in teaching and learning, and regional service and development." In addition, "...the College prepares students for careers, advanced study and civic involvement." Improving educational opportunities for all students is one goal of this minor, another is to meet the needs of state, local, and private companies looking for potential employees with experience using GIS, CAD, and surveying technologies.

## **3. Evidence of Need and Demand**

### **Need for Program**

GIS and CAD technologies have developed independently from each other in both academic and professional sectors ( <https://www.esri.com/en-us/arcgis/products/arcgis-for-autocad> , [https://geospatial.blogs.com/geospatial/2006/06/bringing\\_gis\\_an.html](https://geospatial.blogs.com/geospatial/2006/06/bringing_gis_an.html) , and <https://gisgeography.com/geomatics-gis-difference/> ). The program areas in Geography and Industrial Technology believe there is a need for students to study GIS, surveying/drafting techniques, and pre-calculus, which includes trigonometry.

According to the U.S. Bureau of Labor Statistics, similar occupations for Surveying and Mapping Technicians include: Architects, cartographers and photogrammetrists, civil engineering technicians, construction and building inspectors, drafters, geographers, geological and petroleum technicians, landscape architects, and surveyors (<https://www.bls.gov/ooh/architecture-and-engineering/surveying-and-mapping-technicians.htm#tab-8> ). Most of these occupations have an estimated average growth rate of 5-6% in 2018-2028 (<https://www.bls.gov/ooh/architecture-and-engineering/surveying-and-mapping-technicians.htm> and <https://www.bls.gov/ooh/architecture-and-engineering/surveyors.htm> ). However, it is predicted that Cartography and Photogrammetry occupations will grow 15% in 2018-2028, which is much faster than the national average (<https://www.bls.gov/ooh/architecture-and-engineering/cartographers-and-photogrammetrists.htm> ).

During the past academic year, a number of online job search sites have advertised GIS/CAD Tech jobs desiring candidates with skills using both GIS and drafting software applications. gWorks, headquartered in Omaha, Nebraska does contract work for small cities and rural counties in Nebraska. This company had a job opening for a GIS Technician. Qualifications for this job required experience using Esri GIS software, CAD, AutoCAD, and Microstation. Tri State Ag Corp in Hull, Iowa advertised positions involving CAD Operator, GIS Technician, and Cadastral Mapping and desired employee candidates to have experience using AutoCAD and ArcMap GIS. HDR in Lincoln, Nebraska advertised a position for Senior Civil CAD/GIS Designer and required qualifications included proficiency using AutoCAD, Microstation, and ArcGIS.

Matt Tinkham, senior surveyor at Lamp Rynearson explained to us that there is a growing demand for surveyors. He has promoted WSC's Mapping minor at Professional Surveyors Association of Nebraska (PSAN) board meetings. Geography alumni have also expressed that there is a demand for employees with surveying, print reading, CAD, GPS, and GIS experience.

This new minor will contribute to the economic development in small towns within the region by meeting the needs of state, local, and private agencies looking for employees with experience using GIS, CAD, and surveying technologies.

### **Demand for the program**

The Geography program plans to attract five (5) students to the Mapping minor per year.

WSC currently offers all courses listed in the new minor. Since Fall 2017, the required courses in the minor have had enrollments in the double digits, so courses are available to students wishing to complete the minor.

Course	Spring 2020 Enrollment	Fall 2019 Enrollment	Spring 2019 Enrollment	Fall 2018 Enrollment	Spring 2018 Enrollment	Fall 2017 Enrollment
GEO 425	15	X	X	X	12	X
GEO 430	X	18	X	X	X	21
GEO 435	X	X	21	X	X	X
ITE 109	24	25	X	21	12	22
ITE 304	X	16	X	21	X	21
MAT 130	X	28	X	16	X	13

#### 4. Adequacy of Resources

##### **Faculty and Staff Resources**

Since there will be minimal impact on FTE and facility resources, current offerings should be able to accommodate additional student demand generated by this new minor. WSC offers the core course requirements applicable to this new minor on a regular basis. Any further changes would be made only if demand for the minor warranted additional sections of required courses. Advisors for the Mapping minor would be Geography and Industrial Technology faculty. Faculty from both program areas will be responsible for marketing and promoting the minor to other departments.

##### **Physical Facilities**

No anticipated needs for facilities beyond those already available.

##### **Instructional Equipment**

No immediate needs anticipated.

##### **Budget Projections**

No increase in budget is needed, as the minor utilizes existing courses, faculty, and staff.

#### 5. Avoidance of Unnecessary Duplication

##### **Other similar programs in the state**

Wayne State College offers two minors, Drafting and Geospatial Technology. Drafting focuses on CAD coursework, while Geospatial Technology requires coursework in Geography, GIS, Remote Sensing, and Computer Science. Both minors are 21-hours, with students completing 18 required hours and 1 elective at 3-hours. Faculty in Industrial Technology and Geography Programs express a need for a minor that combines the skills acquired in both minors. Furthermore, faculty in both programs felt adding GIS and CAD elective coursework in their respective minors would not merit sufficient preparation for students pursuing a career utilizing both technologies.

Typically, higher education institutions offer a major, minor, certificate, or associates degree in Drafting or GIS/Geospatial Technology, but rarely do program areas require both technologies.

In Nebraska, most university/college Drafting, Construction Management, and Geographic Information Systems (GIS) programs separate CAD and GIS. For instance, the Drafting Programs at Northeast Community College and Metropolitan Community College require only CAD coursework (<https://northeast.edu/Degrees-and-Programs/Drafting/Certificate/> and <https://mycatalog.mccneb.edu/content.php?catoid=2&navoid=57> ).

The University of Nebraska system offers a Geography major, a Geography major with a concentration in Geographic Information Systems, and a GIS certificate ([https://www.unl.edu/gradstudies/prospective/programs/Cert\\_GeographicInformationScience](https://www.unl.edu/gradstudies/prospective/programs/Cert_GeographicInformationScience) <https://www.unomaha.edu/academics/majors-and-programs/index.php> <https://www.unomaha.edu/academics/majors-and-programs/index.php> and <http://www.unk.edu/academics/geography/geography-and-geographical-information-science.php> ).

UNK's Construction Management major only requires CAD and not GIS (<https://www.unk.edu/academics/itec/construction-management/index.php> ).

Southeast Community College, headquartered in Lincoln, Nebraska, offers an associate degree in Land/GIS/Civil Engineering Tech, which requires several CAD classes and only one GIS course (<https://www.southeast.edu/landsurveyingtech/> ).

#### **Similar programs in contiguous states for graduate and professional programs**

Iowa Western Community College in Council Bluffs, Iowa offers a Civil Engineering Technician diploma, requiring both GIS and CAD coursework ([https://www.iwcc.edu/academic\\_programs/](https://www.iwcc.edu/academic_programs/) ).

St. Cloud University requires both GIS and CAD coursework in the Land Surveying/Mapping Sciences major and Land Surveying Certificate (<https://www.stcloudstate.edu/programs/land-surveying/default.aspx> ).

Ferris State University in Big Rapids, Michigan offers a major and minor in Surveying Engineering (<https://catalog.ferris.edu/program/468> ) and a minor in Surveying and Mapping (<https://catalog.ferris.edu/program/451> ).

Michigan Tech offers a B.S. in Surveying Engineering and Purdue University offers a B.S. Geomatics Engineering. Both of these programs require both GIS and CAD.

A minor in Mapping offered at WSC would serve the Northeast Nebraska region and would not create necessary duplication.

## **6. Consistency with the Comprehensive Statewide Plan for Postsecondary Education**

This proposal is consistent with “**Meeting the Needs of the Students**” through this program being “student-centered, creating inclusive environments that foster student success, and offering lifelong learning opportunities that are responsive to students’ and workforce needs” and “fostering critical thinking skills and providing graduates with the knowledge and workplace skills needed to be successful employees, innovative entrepreneurs, and responsible citizens on a global stage.”

This proposal is also consistent with “**Meeting the Needs of the State**” through being “responsive to the workforce development and ongoing training needs of employers and industries to build and sustain a knowledgeable trained and skilled workforce in both rural and urban areas of the state.”

This new Mapping minor will be responsive to the needs of employers and industries to build a knowledgeable and skilled workforce in the areas of surveyors, cartographers, photogrammetrists, and mapping technicians. In addition, coursework will prepare students for productive and fulfilling lives by asking them to gather and evaluate information, think critically, and communicate effectively.

This minor requires students to complete a 1-credit hour internship with a certified surveying company, which also meets state educational goals by fostering collaboration and partnerships. Finally, this program would serve as an efficient example of using the state’s resources, as it would make use of existing faculty and infrastructure already in place.

**Wayne State College**  
**Proposal to Add Minor in Human Services**  
**(Human Service Counseling Major)**

1. Descriptive information

- A. Name of institution  
Wayne State College (WSC)
- B. Name of program  
Human Services
- C. Degrees/credentials to be awarded graduates of the program  
Minor: Human Services
- D. Other programs offered in this field by the institution  
Major in Human Service Counseling
- E. CIP code  
42.2803
- F. Administrative units for the program  
Department of Counseling, School of Education and Counseling
- G. Proposed delivery site(s) and type(s) of delivery, if applicable  
On Campus WSC, face-to-face, hybrid, and online
- H. Proposed date (term/year) the program will be initiated  
Fall, 2020
- I. Description, including credit hours and other requirements (program of study) and purpose of the proposed program.  
This 21-credit minor is designed to offer students from diverse academic majors with an interest in the behavioral sciences the opportunity to integrate, apply and synthesize interdisciplinary knowledge, skills and aptitudes to human services. The minor will include 12 credits of required core courses and 9 credits of electives, with 50% of the total program occurring through upper-division coursework.

## **Minor in Human Services (21 hours)**

### Required Core Courses (12 hours):

CSL 202 Introduction to Human Service Counseling (3)

CSL 324 Fundamentals of Counseling (3)

CSL 342 Interviewing Skills (3)

CSL 470 Planning, Administration, and Evaluation of Human Service Programs (3)

### Electives (9 hours): Electives by advisement and must be selected from the following:

CSL 218 Personal Growth (3)

CSL 403 Group Strategies in Counseling (3)

CSL 409 Human Sexuality Counseling (3)

CSL 440 Substance-Related and Addictive Disorder Counseling (3)

CSL 445 Clinical Issues in Substance Related and Addictive Disorders (2)

CSL 449 Alcohol/Drug Assessment, Case Planning & Management (2)

PSY 230 Life Span Development (3)

PSY 316 Social Psychology (3)

PSY 450 Abnormal Psychology (3)

SOC 220 Social Problems (3)

SOC 320 Social Welfare (3)

SOC 415 The Family (3)

## **2. Centrality to Role and Mission**

Wayne State College's Mission Statement reads: "dedicated to freedom of inquiry, excellence in teaching and learning and regional service and development." And in this mission, the vision is to "make a notable difference to rural and community life." A Minor in Human Services would gather students from diverse disciplines and skill sets to apply their knowledge and skills toward a better understanding of human service issues and solutions in their communities, the region and the world. The addition of this minor is an effort on behalf of the School of Education and Counseling to recruit and prepare professionals to serve in the variety of human service and behavioral health industries.

## **3. Evidence of Need and Demand**

Need: There has been a continued need and request by students from psychology, sociology, criminal justice, and family consumer science who are interested in human service counseling, but who are not interested in a full major. These students often request the development of an interdisciplinary minor (a few have been approved this spring semester already). The addition of this minor program in Human Services would result in alleviating the need for these interdisciplinary minors and offer students the opportunity to build their own human services related program.

According to the U.S. Bureau of Labor Statistics, the Social and Human Service Assistant Occupation has an expected growth rate of 13% from 2018-2028, which is much faster than the average for all occupations (<https://www.bls.gov/ooh/community-and-social-service/social-and-human-service-assistants.htm>).

The new minor will help spark interest in the field and eventually help meet the demand for social service workers in the region.

This minor is in part a response to the Behavioral Health Task Force's recommendations to create an integrated behavioral health major/minor on campus. Though the Human Services minor might not fully represent the aspirations of the task force, it is a good and timely first start at helping to address our region's workforce needs pertaining to the counseling, human service, and/or behavioral health fields.

Demand:

This minor will seek to recruit students from a variety of disciplines, offering opportunities for skill development and application toward human services, counseling, and other behavior health-related issues. Because all courses in the proposed minor are currently offered, there will be no additional courses needed. Therefore, while a minimum enrollment is not predictable until the minor is established, it is believed that the existing courses will be able to accommodate students from this minor as those courses regularly meet/fill.

#### 4. Adequacy of Resources

Faculty and Staff: Because all courses are currently offered, there will be no impact on FTE and facility resources and current offerings should be able to absorb additional students from the Human Services Minor.

Physical Facilities: No anticipated needs beyond what currently exists.

Instructional Equipment and Informational Resources: No anticipated needs beyond what currently exists.

Budget Projections: There are no additional expenses to offer the minor, as all of the courses included within the new minor already exist and are being offered, with available seats for students who wish to enroll. No additional revenue is expected, as students will primarily complete this minor as part of the 120 credit hour degree requirements for their chosen major, replacing elective credit.

5. Avoidance of Unnecessary Duplication

A Human Services minor at WSC would serve the Northeast Nebraska region, therefore we see no unnecessary duplication of programs by this proposal.

6. Consistency with the Comprehensive Statewide Plan for Postsecondary Education

In reviewing the document published by the Nebraska Coordinating Commission for Post-Secondary Education, we are convinced that the minor in Human Services would address especially the goal of “Meeting the Needs of the State” for trained human service professionals with diverse skill sets.